

Title (en)  
Method of detecting breakage of wire electrode during wire electrical discharge machining

Title (de)  
Verfahren zum Nachweisen von Drahtbrüchen während Drahtschneidefunkenerosionsbearbeitung

Title (fr)  
Méthode de détection de la rupture du fil-électrode pendant l'usinage par électroérosion

Publication  
**EP 0723832 A3 19971008 (EN)**

Application  
**EP 96300565 A 19960126**

Priority  
JP 3027295 A 19950127

Abstract (en)  
[origin: EP0723832A2] The frequency in occurrence of discharge is repeatedly counted in a predetermined period of time during wire electric discharge machining, and a judgment is made each time as to whether or not the counted frequency exceeds a reference value. When the frequency in occurrence of discharge does not exceed the reference value, the frequency in occurrence of discharge is considered to decrease due to the occurrence of wire breakage, and the wire is judged to be broken. When discharge is not detected until a predetermined period of time has elapsed since the start of the application of power supply voltage for machining, the period of a discharge cycle is considered to extend, namely, the frequency in occurrence of discharge is considered to decrease, and the wire is also judged to be broken. <IMAGE>

IPC 1-7  
**B23H 7/04**

IPC 8 full level  
**B23H 7/02** (2006.01); **B23H 7/04** (2006.01)

CPC (source: EP)  
**B23H 7/04** (2013.01)

Citation (search report)  
• [A] EP 0551520 A1 19930721 - SODICK CO LTD [JP]  
• [A] PATENT ABSTRACTS OF JAPAN vol. 004, no. 009 (M - 089) 23 January 1980 (1980-01-23)

Cited by  
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Designated contracting state (EPC)  
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**EP 96300565 A 19960126**; DE 69607867 T 19960126; JP 3027295 A 19950127